

IN THE SPECIFICATION

Please replace paragraph [0196] (page 38, line 5 *ff.*) with the following revised paragraph:

[0196] Deoxypolynucleotides were prepared by solid phase synthesis on a DNA synthesizer (ExpediteTM EXPEDITETM, Millipore). The 5'-maleimidyl derivatized primer TAA CAC GAC AAA GCG CAA GAT GTG GCG T (SEQ ID NO: 13) was synthesized as described previously (Jestin J. L., Kristensen P., Winter G., A method for the selection of catalysis using phage display and proximity coupling. Angew. Chem. Int. Ed. 1999, 38, 8, 1124-1127) purified on a C18 reverse phase HPLC column, and characterized by electrospray mass spectroscopy 8998.4/8999.9 (measured/calculated). 5-[N--[N--(N-biotinyl-e-aminocaproyl)-γ-aminobutyryl]-3-aminoallyl]-2'-deoxy-uridine-5'-triphosphate (biotin-dUTP) was purchased from Sigma and the other deoxynucleotide triphosphates dATP, dCTP and dGTP were obtained from Roche-Boehringer.

Please replace paragraph [0924] (page 5, line 7) with the following revised paragraph:

[0024] To this end, the present invention provides thermostable polypeptides having at least 80% homology to SEQ ID NO: 26, wherein said polypeptide has at least one mutation selected from the group consisting of a mutation in ~~amino acids 738 to 767 of SEQ ID NO: 26~~ amino acids 461 to 490 of SEQ ID NO: 26 (corresponding to amino acids 738 to 767 of the Taq polymerase wild-type sequence), A331T, S335N, M470K (position 747 of the Taq polymerase wild-type sequence), M470R (position 747 of the Taq polymerase wild-type sequence), F472Y (position 749 of the Taq polymerase wild-type sequence), M484V (position 761 of the Taq polymerase wild-type sequence), M484T (position 761 of the Taq polymerase wild-type sequence), and W550R (position 827 of the Taq polymerase wild-type sequence), and wherein said polypeptide has improved DNA polymerase activity and retains

5'-3' exonuclease activity. In an object of the present invention, the 3'-5' exonuclease activity of the mutant polypeptide is inactive.

Please replace the paragraph [0120] (page 22 to page 23, line 9) with the following revised paragraph:

[0120] A gene (polynucleotide) can also be used which encodes a corresponding or variant polymerase having at least 80% identity to SEQ ID NO: 26. These gene(polynucleotides) can have various mutations. For example, a mutation of one or more amino acids in ~~amino acids 738 to 767 of SEQ ID NO: 26~~ amino acids 461 to 490 of SEQ ID NO: 26. Further examples of mutations include mutations at positions M470, F472, M484, and W550 A331, and S335. In a preferred embodiment, these mutations are A331T, S335N, M470K, M470R, F472Y, M484V, M484T, and W550R. In a particularly preferred embodiment, the polynucleotides of the present invention encode polypeptides having one or more of the aforementioned mutations and share at least 85% identity, at least 90% identity, at least 95% identity, or at least 97.5% identity to the polypeptide of SEQ ID NO: 26. Moreover, polynucleotides of the present invention encode polypeptides that have DNA polymerase activity and/or 5'-3' exonuclease activity. More particularly, the polynucleotides of the present invention encode polypeptides that are capable of catalyzing the reverse transcription of mRNA.